# EARTHQUAKES, VOLCANOES & OTHER HAZARDS

## UNIVERSITY OF FLORIDA, GLY1880 SPRING 2021

#### CONTACT

#### Dr. Anita Marshall (she/her)

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- Williamson Hall 255 off campus for now
- Virtual Office\*: Mon 10:00 am -noon EST or by appt.

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\*See Canvas for Zoom links.

#### COURSE MATERIALS:

Text: Natural Disasters 11<sup>th</sup> Ed. by Patrick L. Abbott.

#### KEY DATES

Exam 1 Window: Feb 18-22 Exam 2 Window: Mar 25-29 Exam 3 Window: Apr 20-28 Welcome to Geologic Hazards! And if you are new to geology all together, welcome to the best science discipline (in my very biased opinion). This course explores the dangerous side of Earth's natural processes. Please read through this syllabus for information to help you succeed in this course.

## COURSE MATERIAL:

The textbook is Natural Disasters 11<sup>th</sup> edition by Patrick L. Abbott. You won't need digital access codes for supporting material. You may purchase the book through the UF bookstore or rent/buy through 3rd party sellers such as Amazon. The first week's reading material is online to give you time to get the book, but you will need it weekly for the rest of the course.

## COURSE-RELATED QUESTIONS:

Please post general questions about the course in the course in the Discussion Forum so the question can be answered for everyone. Before posting, please check to see if your question has already been asked and answered. Contact me directly with personal questions and accommodation requests. For questions about grading, please contact the TA first (feel free to cc me).

## TECHNOLOGY REQUIREMENTS

**Computer & Internet:** Course work will require use of a computer and many assignments will be turned in online through the Canvas course page. For additional information on UF computing requirements please see: <a href="http://it.clas.ufl.edu/policies/student-computer-requirement/">http://it.clas.ufl.edu/policies/student-computer-requirement/</a>

## COURSE DETAILS

**Prerequisite Knowledge:** This is an asynchronous course, which means there are no "live" class requirements. You will complete the assignments, readings and lectures on your own schedule. This is a GenEd physical science (P) course. This course does not have prerequisites, but a basic knowledge of mathematics (basic algebra) is helpful.

**Course Description & Goals:** Natural disasters such as earthquakes, volcanoes, hurricanes, and floods have devastating impacts on human lives. Major topics include plate tectonics, evaluating earthquake and volcanic hazards, the limits of our predictive abilities, the challenges of forecasting floods and hurricanes in a changing climate, and the necessity for decision-making despite scientific uncertainty. Students will analyze recent and historical disasters and explore the interactions of humans with natural and built environments before, during, and after major events. The goals of this course include:

- Examine the current state of scientific understanding about natural disasters.
- Analyze scientific data and using case studies to understand how hazards can impact human lives and how preparation for and response to disasters can be improved.
- Reflect on the social context in which disasters occur and how those social contexts interact with disaster preparation and response.
- Explore how human actions reduce or exacerbate the impact of disasters.

**Course Content Warning:** This class is about hazards and natural disasters. People get hurt and die in disasters. While we will not dwell on macabre details, it is impossible to discuss hazards without talking about death - disasters are called disasters because of the impact on human lives. If you feel you may struggle with this aspect of the course, please contact me as soon as possible so we can determine the best course of action.

#### **Course Responsibilities:**

1. Complete all assignments in a timely fashion.

Each Week includes reading assignments from the textbook and other sources, video lectures and other video content (with accompanying PowerPoint presentations), a Quiz, and an Assignment and/or Discussion. Requirements for class participation, make-up exams and other work is consistent with university policies: <a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>

2. Check the announcements and your e-mail regularly - at least three times a week. It is the only way I can directly communicate with you in an online class. Checking in on course Discussion boards is also highly encouraged.

**Schedule:** The following table outlines the course. Each "week" opens and closes on a Monday. Each new Week opens at noon, and previous modules close at 11:59 pm (US Eastern Time) unless otherwise noted. The best place to find the most up to date course schedule and due dates is the class Calendar on Canvas, or your Canvas "To-Do" list. An announcement will always be made if the schedule changes.

Week	Торіс	Textbook Chapter/Reading				
Section 1: Tectonic Hazards						
<b>1</b> : 1/11 – 1/19	Course Introduction					
	Plate Tectonics and intro to Hazard principles					
<b>2:</b> 1/19* – 1/25	Earthquakes Part 1					
<b>3:</b> 1/25 – 2/1	Earthquakes Part 2					
<b>4:</b> 2/1 – 2/8	Volcanoes Part 1					
<b>5:</b> 2/8 – 2/15	Volcanoes Part 2					
<b>6:</b> 2/15 – 2/22	Exam 1 Window: Feb 18-22	·				
Section 2: Surface	e Hazards – Landslides, Sinkholes, floods & fires					
7: 2/22 – 3/1	Landslides and other surface movements					
<b>8:</b> 3/1 – 3/8	Sinkholes					
<b>9:</b> 3/8 – 3/15	Floods					
<b>10:</b> 3/15 – 3/22	Heatwaves, Droughts and Fires					
<b>11:</b> 3/22 – 2/29	Exam 2 – Window: March 25-29					
Section 3: Severe	Weather and Climate Impacts					
<b>12:</b> 3/29 – 4/5	Severe Weather – Storms and Hurricanes					
<b>13:</b> 4/5 – 4/12	Climate Impacts on Hazards					
<b>14:</b> 4/12 – 4/19	Sea level rise, disaster prep and resiliency					
15: 4/20-4/28	/20-4/28 Exam 3 – take anytime from 4/20 – 4/28					

\*Modules typically start and end on Mondays, but 1/18 is a holiday.

#### COURSE ACTIVITY CATEGORIES

- Assignments: Assignments are designed to enhance the reading and lecture material. Earth Science is a broad discipline, and these exercises incorporate a variety of methods to assist you in learning the concepts presented. Each assignment is worth 50 points. The lowest Assignment grade is dropped, even if it is a zero/missing. Assignments are worth 30% of your total grade.
- **Discussions:** Some modules include a Discussion Activity. This is your chance to thoughtfully engage in topics that are being actively debated/discussed in the world of dinosaur paleontology. You will be expected to post a thoughtful, detailed response according to the Substantive Post Guidelines and Discussion Rubric on the class website. Deadlines for discussion posts are listed on the course calendar. It is easy to forget to do initial posts, so please keep an eye on due dates! Full participation in a Discussion, as outlined in the instructions for each Discussion, is worth 50 points. Your lowest grade will be dropped. Discussions count for 20% of your grade.
- **Quizzes:** There are assigned readings and/or viewings for each week. Each Module has a quiz worth 20 points that draws from all assigned module material lecture, other

assigned videos and readings. Module Quizzes are not timed or proctored, and you have two chances on each quiz. Your lowest quiz grade will be dropped, even if it is a zero/missing. Quizzes are worth 20% of your grade.

**Reflections:** At two points in the course, you will be asked to reflect on the scientific context of disasters and the social and economic drivers of the decision-making process during disasters. The second reflection should ideally build on the first by examining how your thinking has evolved during the course. Each Reflection should be about 1 page in length is worth 200 points. More details and rubric will be provided on Canvas. Reflections are worth 10% of your total grade.

**Exams:** There are 3 exams, one for each Section of the Course. Exams are 20% of your overall grade and proctored with Honorlock. Here are some key points about Honorlock Proctoring:

- You do not need to make a separate account or pre-schedule you exam.
- You will need a computer with reliable internet access, a webcam and microphone. You will not be video recorded during your exam but will need video capabilities to show your id.
- Honorlock works best in the Chrome internet browser.
- You will be required to show picture identification at the time of your exam. Approved forms of identification include, but are not limited to, a driver's license, military identification card, passport, or school-issued identification card.
- Internet browsing will be disabled while your exam is open, so it is important that any digital notes you wish to access are stored on your device and not online.

**Extra Credit:** There will be a few opportunities for extra credit throughout the course, not to exceed 1% of the total grade for the course. These will be made available to everyone. Individual extra credit assignments will not be available.

Late work: Lab Assignments and Quizzes can be turned in up to one week late with no penalty. Discussions and Exams are not accepted late without approval from the instructor.

#### GRADING

See <u>https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx</u> for general UF grading policies. Grades will be based on points accumulated through course activities:

Assignments	30% of total grade	
Discussions	20% of total grade	
Quizzes	20% of total grade	
Exams	20% of total grade	
Reflections	10% of total grade	

Course Points Earned	% Grade	Letter Grade	GPA Value
Earneu		Grade	value
5400	90 +	Α	4.0
5100	85-90	B+	3.5
4800	80-84.9	В	3.0
4500	75-79.9	C+	2.5
4200	70-74.9	С	2.0
3900	65-69.9	D+	1.5
3540	59-65.9	D	1
3480	< 58.9	E	0

Grading Scale for Overall Course Grade:

#### ACCESSIBILITY, INCLUSION & RESPECT

**Respect & Inclusion:** In this classroom (physical or virtual), everyone should feel welcome to share their thoughts in a respectful way. Treat you classmates the way you would like to be treated. You deserve to be called by the name you prefer and with the correct pronunciation. UF has not enabled the feature that enables users to specify pronouns in Canvas, so please correct me if I write or say your pronouns incorrectly! If something in the course material, instruction or class interactions make you feel excluded or uncomfortable, please let me know so I can address it. See the Netiquette section under "UF Policies" for more details on how to interact respectfully online.

**UF Statement on Accommodating Students with Disabilities:** Students requesting accommodation Students with disabilities requesting accommodations should first register with the Disability Resource Center by calling 352-392-8565 or online at <a href="https://disability.ufl.edu/students/get-started/">https://disability.ufl.edu/students/get-started/</a>. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students should follow this procedure as early as possible in the semester, as accommodations are not retroactive.

**My Statement on Accessibility**: We all learn differently. You don't have to have a formally recognized disability to find yourself having difficulty with some aspect of the college learning environment. For example, colorblindness is not typically recognized in formal accommodations, but very much impacts a student's ability to process visual information. Please let me know if something in the course material presents a barrier to your full participation in the course so we can work together to find a reasonable solution – *even if you don't have, or don't yet have, a formal accommodation letter.* And please contact me during the semester if your accommodation needs change.

**Religious Observances, Military Duty & other Unavoidable Absences**: Students who anticipate the necessity of missing homework deadlines and discussions due to religious observances

*must provide notice of the date(s) to the instructor*, in writing at least two weeks in advance of the missed class days so accommodations to be made for missed work. For National Guard, Jury duty, scheduled medical treatments or other unavoidable absences, contact me as soon as you know the dates. Do not wait until after you have missed assignments to ask for an exception, as these requests may not be honored!

## STUDENT FEEDBACK AND COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <a href="https://gatorevals.aa.ufl.edu/students/">https://gatorevals.aa.ufl.edu/students/</a>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <a href="https://ufl.bluera.com/ufl/">https://ufl.bluera.com/ufl/</a>. Summaries of course evaluation results are available to students at <a href="https://gatorevals.aa.ufl.edu/public-results/">https://gatorevals.aa.ufl.edu/public-results/</a>.

#### UF POLICIES

**University Policy on Academic Misconduct:** Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor code: <u>https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/</u>, which is especially important in an online course.

**Netiquette – Communication Courtesy:** All members of the class are expected to not share login information and follow rules of common courtesy in all email messages, threaded discussions and chats. More information at: <u>https://www.cise.ufl.edu/wp-</u> <u>content/uploads/2019/08/CISE Netiquette Guide.pdf</u>

UF Online Handbook: Available at: <u>http://handbook.ufonline.ufl.edu/</u>

## NEED HELP?

**Technical Support:** For issues with technical difficulties for E-learning, please contact the UF Help Desk: <u>http://helpdesk.ufl.edu</u>, or (352) 392-4357 and select option 2. If you miss a deadline due to technical issues, requests for extensions or make-up activities MUST be accompanied by the ticket number received from The Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

**Help from me and/or TA:** Office hours are for your benefit - ask questions, get assignment help, discuss geoscience degrees and career options, etc. We are happy to set up a virtual chat at another time if you can't meet during office hours. You may also email us, but please check to make sure you question hasn't been answered already in the Announcements or Class Questions Discussion Board before reaching out. For questions about grading, please contact the TA first (feel free to cc me on emails to Tas if you like).

**Other Resources:** For support regarding Counseling and Wellness, disability, documenting student concerns and complaints, and a link to the Library Help Desk, please see <a href="http://www.distance.ufl.edu/getting-help">http://www.distance.ufl.edu/getting-help</a>.